

## Cycling in Christchurch: potential for planners in the rebuild ?

**Prof Simon Kingham**  
Professor of Geography and Director of the  
GeofHealth Laboratory

Canterbury Branch of the New Zealand Planning Institute  
Breakfast meeting, July 25<sup>th</sup> 2014

### Context



### Economic sense

## ACTIVE TRANSPORT IS GOOD ECONOMICALLY

- NZ research: "transforming urban roads over the next 40 years, using best practice physical separation on main roads and bicycle-friendly speed reduction on local streets, would yield benefits 10–25 times greater than costs" (Macmillan et al, 2014)
- A 3 yr intervention in 6 cycling demonstration towns found £2.59 benefit for every £1 invested in decreased mortality alone (Sloman et al, 2009)
- Review of sixteen economic evaluations of the health effects of transport interventions that increased walking and cycling found that mean benefit-cost ratio of 5:1 (Cavill et al, 2008)

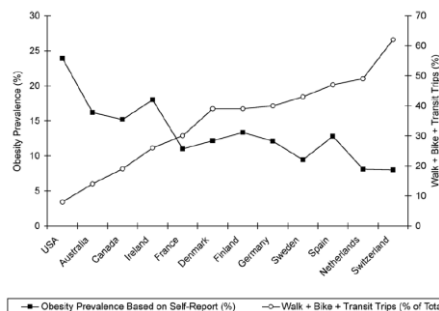
### Costs

- Obesity costs NZ \$622m per year\* in health costs alone (+ \$98-\$222m lost productivity)#
- That equates to \$64m in Christchurch for health costs (+ \$10-\$23m in lost productivity)

\* Based on 2006 figures

# Lal et al, 2012, Health care and lost productivity costs of overweight and obesity in New Zealand. Aust NZ J Public Health. 2012; 36:550-6

### What level of impact



Source: Bassett et al, 2008, Walking, Cycling, and Obesity Rates in Europe, North America, and Australia. Journal of Physical Activity & Health 5 (6):795-814.

Costs



- If Christchurch’s obesity rates dropped from 33% to:
- 11.4% (Netherlands); we’d save over \$50m p.a.
  - 20% - we’d save over \$30m p.a.
  - 25% - we’d save over \$20m p.a.

But what’s the link between cycling and obesity rates?



New York City Dept of Transportation, Measuring the Street: New Metrics for 21st Century Streets  
[www.nyc.gov/html/dot/downloads/pdf/2012-10-measuring-the-street.pdf](http://www.nyc.gov/html/dot/downloads/pdf/2012-10-measuring-the-street.pdf)

Average Customer Expenditures by Mode of Travel and Type of Establishment

Clifton K, 2012, Business Cycles: Catering to the Bicycling Market, TRB 280, 26

| Mode    | Establishment | Trips per Month | \$ per Trip | \$ per Month | N     |
|---------|---------------|-----------------|-------------|--------------|-------|
| Auto    | Bar           | 1.6             | 25.55       | 40.21        | 88    |
|         | Convenience   | 9.9             | 7.98        | 79.37        | 543   |
|         | Restaurant    | 2.2             | 18.74       | 41.16        | 409   |
|         | Total         | 4.5             | 13.70       | 61.03        | 1,040 |
| Bike    | Bar           | 4.9             | 14.08       | 68.56        | 42    |
|         | Convenience   | 14.5            | 7.30        | 105.66       | 63    |
|         | Restaurant    | 3.5             | 12.08       | 42.52        | 48    |
|         | Total         | 7.1             | 10.66       | 75.66        | 153   |
| Transit | Bar           | 1.8             | 19.54       | 35.35        | 13    |
|         | Convenience   | 10.9            | 6.91        | 75.62        | 53    |
|         | Restaurant    | 3.5             | 11.52       | 40.68        | 36    |
|         | Total         | 5.7             | 10.15       | 58.16        | 102   |
| Walk    | Bar           | 3.1             | 22.17       | 68.42        | 53    |
|         | Convenience   | 12.6            | 6.13        | 77.34        | 254   |
|         | Restaurant    | 2.6             | 16.74       | 43.77        | 131   |
|         | Total         | 5.9             | 11.25       | 66.22        | 438   |
| Total   | Bar           | 2.5             | 21.78       | 53.59        | 196   |
|         | Convenience   | 10.9            | 7.36        | 80.40        | 913   |
|         | Restaurant    | 2.4             | 17.39       | 41.78        | 624   |
|         | Total         | 5.0             | 12.60       | 63.46        | 1,733 |

Note: N = number of respondents.

Road space and congestion



Cycling Promotion Fund, Australia. [www.bikeoz.com.au/index.php/cycling-promotion-fund](http://www.bikeoz.com.au/index.php/cycling-promotion-fund)

Happiness

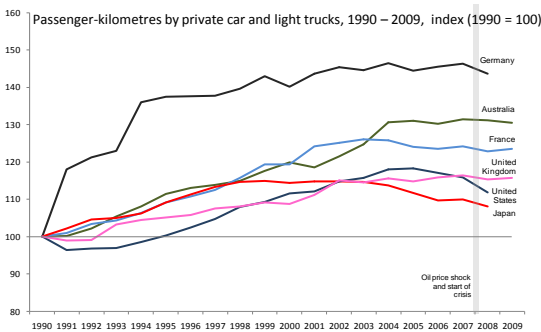


Morris EA and Guerra E, 2014, Mood and mode: does how we travel affect how we feel? Transportation DOI 10.1007/s11116-014-9521-x



PLANNING FOR FUTURE VEHICLE DEMAND?

## Peak car



## Peak car



**The New Zealand Herald** Search keywords...

National World Business Sport Technology Entertainment Life & Style

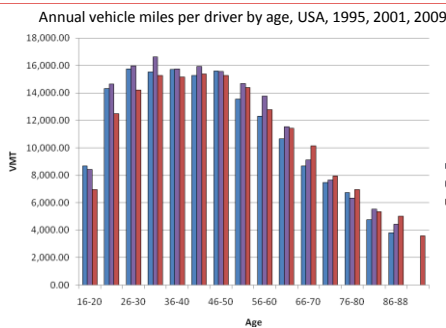
**Brian Rudman's Opinion**  
Brian Rudman is a NZ Herald feature writer and columnist. Email Brian

**Brian Rudman: End of the road for the sacred car?**  
9:30 AM Friday Jun 6, 2014 89 comments

Auckland Region Brian Rudman on Auckland Motoring 131 18 0 1

As New Zealand's largest roading project roars ahead, people are using their vehicles less and their legs more

## Peak car and age



## BUILD IT AND THEY WILL COME

## Christchurch research



### Assessment of the type of cycle infrastructure required to attract new cyclists

- Type of infrastructure needed to attract 'new' cyclists
- Investigate the barriers and motivations for cycling
  - Perceived danger is main barrier!
  - Physical separation was key

Source: Kingham S, Koorey G and Taylor K, 2011, Assessment of the type of cycle infrastructure required to attract new cyclists. NZTA Research Report 449.

## Physical separation



### If you build it, they will come: New study shows that bike lanes increase ridership

Lloyd Alter (@lloydalter) Transportation / Bikes June 3, 2014 Share on Facebook

Austin, TX Barton Springs Road One way protected bike lane on the south side of the road

Blackwood Lane Two way protected bike lane on a two way street

Wig Grande Street Two way protected bike lane on one way street

## NEED TO KNOW NEEDS OF POTENTIAL USERS

### Context



Roger Geller's 4 types of cyclist  
<http://www.portlandoregon.gov/transportation/44597?a=237507>

### "Share An Idea"

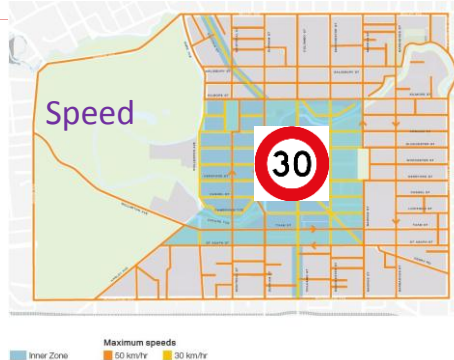


### Need to know needs of potential users

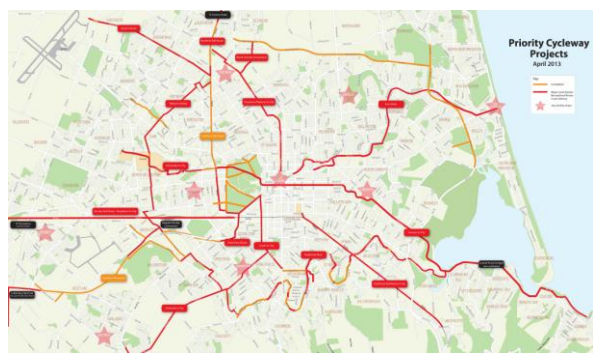
- Don't listen to cyclists
  - Especially anyone in lycra!

## QUICK WINS vs BIG PROJECTS

### Christchurch Central Recovery Plan: An Accessible City - Oct 2013



## New Cycle Route Programme



## Targeted improvements programme



## BIKELASH!

## New York City

DAILY NEWS NEW YORK NEWS POLITICS SPORTS

### The bike revolution and its backlash

From bike lanes to Citi Bike and beyond, how the two-wheeled insurgency resembles other social uprisings

By LOUISE BERNER / NEW YORK DAILY NEWS / Friday, May 16, 2013, 4:15 AM



Transportation Commissioner Janette Sadik-Khan and Deputy Mayor Howard Weisbaum kick off New York City's bike share program.

The bike wars are still at fever pitch, with mayoral candidates tripping over themselves in the rush to reverse some of Mayor Bloomberg's pro-cyclist policies.



## N.Y. / Region

### Expansion of Bike Lanes in City Brings Backlash

WORLD, U.S., N.Y., BUSINESS, TECHNOLOGY, SPORTS, REALTY, ARTS, OPINION



Adding the bicycle lane on South Avenue, New York has added 200 miles of bicycle-only lanes in the past four years, but not everyone is pleased.

Over the last four years, the streets of New York City have undergone a transformation. More than 200 miles of traffic lanes dedicated for bicycles have been created, and several laws intended to promote cycling have been passed.

The efforts by the Bloomberg administration have placed the city at the forefront of a national trend to make bicycling viable and safe even in the most urban of settings. Yet over the last year, a backlash has taken hold.

The issue, the official news outlet said, is not the safety of the bike lane but the safety of the car lane. The city has been accused of being too aggressive in its efforts to create bike lanes, and some people are complaining that the city is taking away too much space from cars.

## New York City



theguardian  
News | Sport | Comment | C  
Environment > Bike blog  
Bike blog

What is also at stake, potentially, is the career of New York's transportation commissioner, Janette Sadik-Khan, who has been an effective and high-profile champion of public transportation, pedestrianisation projects and pro-cycling measures. And on her fate rests the whole future of transportation and traffic management public policy in the city of New York. Mayor Michael Bloomberg is under considerable pressure to admit that the lieutenant he once charged with delivering his own ambitious "greenprint" for a sustainable city, PlanNYC, has become a PR liability. If he now hangs Sadik-Khan out to dry, it will be a huge setback for PlanNYC, and a major reversal for progressive transport policy.

Previous Blog home

### How one New York bike lane could affect the future of cycling worldwide

A much more significant story than the future of one bike lane in Brooklyn, a great deal hangs on the lawsuit filed against the city

- New York's transportation chief is a latter-day Robin Hood
- Learning to ride a bike in Manhattan

## Adelaide

06 NEWS

## Calls for calm as bike lane backlash gains momentum

THE WILLIAMS CITY EDITOR

THE PROPOSED CONGESTION DE-CONGESTION ACT, which would allow a bike lane to be used as a parking space for cars, has been rejected by the Adelaide City Council.

Two days after the council rejected the bill, the Adelaide City Council has rejected the bill, which would allow a bike lane to be used as a parking space for cars.

The Adelaide City Council has rejected the bill, which would allow a bike lane to be used as a parking space for cars.

The Adelaide City Council has rejected the bill, which would allow a bike lane to be used as a parking space for cars.

## Congestion sparks push to reinstate bike lane for cars

THE WILLIAMS CITY EDITOR

THE PROPOSED CONGESTION DE-CONGESTION ACT, which would allow a bike lane to be used as a parking space for cars, has been rejected by the Adelaide City Council.

Two days after the council rejected the bill, the Adelaide City Council has rejected the bill, which would allow a bike lane to be used as a parking space for cars.

WHAT WOULD YOU DO TO END THE WAR BETWEEN CARS AND BIKES?

THE PROPOSED CONGESTION DE-CONGESTION ACT, which would allow a bike lane to be used as a parking space for cars, has been rejected by the Adelaide City Council.

Two days after the council rejected the bill, the Adelaide City Council has rejected the bill, which would allow a bike lane to be used as a parking space for cars.



## Sea search for swimmer

SATURDAY APRIL 26, 2014 ADVERTISER.COM.AU

POLICE will continue an underwater search for a man who went missing in the morning at the entrance of the city of Adelaide.

The man, who was 35 years old, was last seen on the morning of the search.

The man, who was 35 years old, was last seen on the morning of the search.

The man, who was 35 years old, was last seen on the morning of the search.

The man, who was 35 years old, was last seen on the morning of the search.

The man, who was 35 years old, was last seen on the morning of the search.

The man, who was 35 years old, was last seen on the morning of the search.



